Application No. 09/493,517   **Atty Docket: CMRC 1012-1**

REMARKS

Claims 1-35 are pending in this application. As a result of a restriction requirement, claims 1-13 have been withdrawn, leaving for prosecution in this application claims 14-35. Independent claims 14, 25 and 31 have been amended. The dependent claims have not been amended.

The Specification

The abstract of the disclosure has been objected to because it exceeds the limit of 150 words. A replacement abstract is submitted herewith, 115 words long.

Claim Rejections under 35 USC 112

Claims 14-24 are rejected under 35 USC 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicants regard as the invention. The omitted word "and" has been added to claim 14 to make it more definite.

Claim Rejections under 35 USC 102

Claim 25 is rejected under 35 USC 102(a) as being anticipated by W3C, "XML Schema part 1: Structure", 06/05,1999 (W3C XML Schema), as cited in Applicants' IDS. The rejected claim clearly uses means plus function language. It is worth exploring the "means for extending a definition of an element in the first schema by use of a second schema" identified in the specification, before comparing it to the W3C XML Schema document. Section "D. Enhanced XML and Polymorphic Schemas", pages 13-16 of the application identifies the means claimed. A clear example is given of means that accomplishes polymorphism by allowing extension of a particular element. The application explains, at page 12, various failings of standard XML, on which the Examiner relies. "Amongst the deficiencies of standard XML as an e-commerce protocol is that the language does not provide adequate means for checking integrity constraints on 10 data. Moreover, conventional XML does not support polymorphic changes to schemas. As such, schemas must be entirely rewritten to accommodate

Page 10 of 13

minor changes to conventional transactions which have pre-existing schemas.
Moreover, the changes to the schemas would have a global impact on applications that
create and process document instances." The means illustrated on pages 13-16
overcome these deficiencies.

The Examiner points to W3C XML Schema section 2.4, where the words
"Extends the current schema" appear, but the Examiner does not compare the "Schema
Import" feature of W3C XML Schema to the claimed means, as explained on pages 13-
16. (For the Examiner's convenience, Applicants point out that the cited document is
available on the web at http://www.w3.org/1999/05/06-xmlschema-1/. The web version
is more legible and readily searchable than the hard copy.) To understand the "XML
Schema: Structures Feature" named "Schema Import" that is briefly described in section
2.4, it is necessary to follow the hyperlink of that term to section 4.4. In section 4.4, an
example is given of how the Schema Import statement works. It makes new element
definitions available, as if they had been "included" in primary schema. However, these
new element definitions do not "extend[] a definition of an element in the first schema",
as claimed. When compared to the claimed means that is explained on application
pages 13-16, it is clear that the W3C XML Schema "Schema Import" feature (section
4.4) does not provide a structure that is identical or equivalent to the means claimed.
Therefore, there is no anticipation and independent claim 25 and dependent claims 26-
29, which depend from claim 25, should be allowable over W3C XML Schema.

Claim Rejections under 35 USC 103

Claims 14-17, 19-22, 26-31 and 35 are rejected under 35 USC 103(a) as being
unpatentable over W3C XML Schema. Claims 26-30 have previously been addressed,
as depending from claim 25.

The Examiner rejected claim 14 before the word "and" was added to clarify the
relationship between the second tag definition in the second schema and the first tag
definition in the first schema. As amended, it is clear that a method of extending the
definition of the first tag is claimed. The example on application pages 13-16 illustrates,
without limiting the claim, how extending a definition can work. The application

Page 11 of 13

Application No. 09/493,517   **Atty Docket: CMRC 1012-1**

explains, at page 12, various failings of standard XML, on which the Examiner relies. "Amongst the deficiencies of standard XML as an e-commerce protocol is that the language does not provide adequate means for checking integrity constraints on data. Moreover, conventional XML does not support polymorphic changes to schemas. As such, schemas must be entirely rewritten to accommodate minor changes to conventional transactions which have pre-existing schemas. Moreover, the changes to the schemas would have a global impact on applications that create and process document instances." Looking at W3C XML Schema section 4.4 and the example given, in particular, it is clear that the cited reference does not teach defining a second tag in a second schema as claimed. The W3C schema example does not include "the plurality of elements [in the first schema] ... and [i.e., plus] an additional element from the markup language".

Applicants respectfully submit that independent claim 14 and dependent claims 15-24, that depend from claim 14, should be allowable over W3C XML Schema, for at least the reasons given above.

Applicants do not understand the Examiner's basis for rejecting dependent claim 16. A more specific reference than "Section 2.4" and an explanation of the Examiner's rationale are requested.

The Examiner rejects claim 31 as obvious in light of W3C XML Schema. Applicants have amended the claim to read, "the second schema ~~modifies~~ extends at least one element from the one or more elements used in the document instance". As explained above and in the application, at page 12, the W3C XML Schema uses the "Schema Import" feature as an include statement, without any notion of extending an element. Applicants respectfully submit that independent claim 31 and dependent claims 32-35, that depend from claim 31, should be allowable over W3C XML Schema, for at least the reasons given above.

Claims 18, 23-24 and 32-34 are rejected under 35 USC 103(a) as being

Page 12 of 13

Application No. 09/493,517   **Atty Docket: CMRC 1012-1**

unpatentable over W3C in view of Usdin et al. "XML: Not a Silver Bullet, But a Great

Pipe Wrench", 09/1998. The article mentions, for instance, CBL as a tool for electronic

commerce. However, the article does not supply the missing element of an ability to

extend a schema so that a purchase order definition, for instance, is not found in a

multitude of very similar forms, for lack of an agreed method to extend an element of the

purchase order schema. Therefore, reliance on the additional reference does not
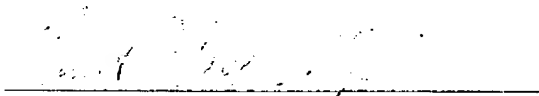
render any of the independent claims obvious.

CONCLUSION

Applicants respectfully submit that the claims, as stated herein, are in condition

for allowance and solicit acceptance of the claims, in light of these remarks. If the

Examiner disagrees and sees amendments that might facilitate allowance of the claims,

a call to the undersigned would be appreciated.

Should any questions arise, the undersigned can ordinarily be reached at his

office at 650-712-0340 from 8:30 to 5:30 PST, M-F and can be reached at his cell

phone 415-902-6112 most other times.

Respectfully submitted,

Dated: 14 September 2004

_____

Ernest J. Beffel, Jr., Reg. No. 43,489

HAYNES BEFFEL & WOLFELD LLP
P.O. Box 366
Half Moon Bay, CA 94019
(650) 712-0340 phone
(650) 712-0263 fax

Page 13 of 13